

From: <Johnathan_Jernigan@nps.gov>
To: <Kathy_McKay@nps.gov>, <flynntj@dhec.sc.gov>
CC: <Bob_Carson@nps.gov>, <Ellen_Porter@nps.gov>, <John_D_Ray@nps.gov>, <Ter...
Date: 7/2/2008 4:30 PM
Subject: Re: Fw: South Carolina plans to remove COWP ozone station
Attachments: COWP_O3_Brief Look.doc

Hi All,

I'd say you all still have need for the data. In speaking with staff from the National Park Service - Air Resources Division, it seems the information that you submitted last year still applies, the park service would still like to have the monitor in place, and you've already had one exceedance of the NAAQS standard as of April of this year (see <http://www.nature.nps.gov/air/Monitoring/exceed.cfm>). With an exceedance so early in the season, it is likely there will be more. The standard is based on the 4th high, 3-yr 8-hr ave, so we can't say whether the area will end up being a nonattainment area, but high readings this early could be an indicator.

I would strongly urge the State to retain this monitor.

Thanks,
Johnathan

Johnathan Jernigan - Physical Scientist
National Park Service Air Resources Division and Cumberland Piedmont Network
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Mammoth Cave NP Visibility Web Camera:
<http://www.nature.nps.gov/air/webcams/parks/macacam/macacam.cfm>

Access to NPS Gaseous Pollutant and Meteorological Data:
<http://ard-aq-request.air-resource.com>

Mammoth Cave NP NRCS Soil Climate Analysis Network Station:
<http://www.wcc.nrcs.usda.gov/scan/Kentucky/kentucky.html>

Mammoth Cave NP NOAA Climate Reference Station
<http://www.ncdc.noaa.gov/crn/hourly>

Cumberland Piedmont Network
<http://science.nature.nps.gov/im/units/cupn>

Kathy
McKay/COWP/NPS

07/02/2008 01:27 PM

To
johnathan_jernigan@nps.gov
cc

Subject

Fw: South Carolina plans to remove
COWP ozone station

Kathy McKay
Cowpens National Battlefield
864-461-2828

----- Forwarded by Kathy McKay/COWP/NPS on 07/02/2008 03:26 PM -----

Kathy
McKay/COWP/NPS

07/01/2008 02:47 PM To
FlynnTJ@DHEC.SC.Gov
cc

Subject
Fw: South Carolina plans to remove
COWP ozone station

Brief Look: Ozone at Cowpens National Monument
1989-2007

The Cowpens NM ozone monitoring station has been recording data since 1989. Since roughly 1999 the ozone concentrations and number of exceedances have been going down. The 3-year average plot (Figure 1) makes this recent trend look fairly regular and shows the last 4 years as being below the ozone standard. The annual plot of 4th highest 8-hr ozone (figure 2) shows a bit more variation. Just looking at the number of days (Figure 3) when ozone exceeded 85 ppb each year gives a better sense of the extreme variability from year to year. Although the Cowpens NM monitor now shows the ozone air quality to be below the current ozone standard, the concentrations are just back down to the early 1990's levels. If the ozone standard is lowered in EPA's announcements later this summer, then current concentration will be borderline. The overall trend for the life of the monitor at Cowpens in no change.

Removing the ozone monitor from Cowpens is premature both for assuring that the area doesn't exceedance the ozone NAAQS and for determining the trend. If the decrease in ozone since 1999 is from emission cutbacks due to the

NOx SIP Call then ozone concentrations may continue to go down. If the change has been due to a climate variation the concentrations could easily jump to above the standard as seen in 2002 to 2003.

The above comments were taken from the attached document from John Ray.

Kathy McKay
Cowpens National Battlefield
864-461-2828
----- Forwarded by Kathy McKay/COWP/NPS on 07/01/2008 02:45 PM -----

Kathy
McKay/COWP/NPS

To
06/10/2007 08:58 AM
FlynnTJ@DHEC.SC.Gov
cc

Subject
Fw: South Carolina plans to remove
COWP ozone station

Another comment. Not sure if it was forwarded to your email.

Kathy McKay
Cowpens National Battlefield
864-461-2828
----- Forwarded by Kathy McKay/COWP/NPS on 06/10/2007 08:58 AM -----

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Bob Carson

06/08/2007 09:36 AM CST

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>-----|

To: John D Ray/DENVER/NPS@NPS

cc: John Vimont/DENVER/NPS@NPS, Teresa Leibfreid/Atlanta/NPS@NPS, Kathy McKay/COWP/NPS@NPS, Shepard McAninch/Atlanta/NPS@NPS

Subject: Re: South Carolina plans to remove COWP ozone station(Document link: Kathy McKay)

>-----|

Hi John,

Thank you for putting together a quick response in support of the continued

operation of the Cowpens NB ozone station. Hopefully South Carolina will reconsider their proposal as presented in their monitoring plan to EPA. I thought I would see Scott Reynolds at next week's VISTAS meeting in Asheville, NC but noticed on the attendees list that he will not be there.

Bobby C.

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Mammoth Cave NP Visibility Web Camera:
<http://www2.nature.nps.gov/air/webcams/parks/macacam/macacam.cfm>

Mammoth Cave NP NRCS Soil Climate Analysis Network Station:
<http://www.wcc.nrcs.usda.gov/scan/Kentucky/kentucky.html>

Mammoth Cave NP NOAA Climate Reference Station
<http://www.ncdc.noaa.gov/crn/hourly>

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|-----+----->
|      |      John D Ray      |
|      |      06/07/2007 02:19 |
|      |      PM MDT          |
|-----+----->
>-----|
|      |      To:   Bob Carson/MACA/NPS@NPS, John Vimont/DENVER/NPS@NPS, Ellen
|      |      Porter/DENVER/NPS@NPS, Brian
|      |      Mitchell/DENVER/NPS@NPS
|      |      cc:   Denesia Cheek/Atlanta/NPS@NPS, Johnathan Jernigan/MACA/NPS@NPS,
|      |      REYNOLDS@dhec.sc.gov
|      |      Subject: Re: South Carolina plans to remove COWP ozone station(Document link: Bob Carson)
|      |
|      |      >-----|
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I agree, it would be a shame to lose the Cowpens ozone monitor.

Here is a summary of what we know about the ozone at the Cowpens site.

(See attached file: COWP_O3_Brief Look.doc)

John D. Ray, Atmospheric Chemist

The Air Monitoring Plan for 2008 is available for comment and as I mentioned we're interested in any feedback.
Its posted on the DHEC site at:

<http://www.dhec.sc.gov/environment/baq/ambientairmonitoring.aspx>

and I've attached the pdf for your convenience. Please pass on to anyone you think may be interested. Sorry for the short notice but the comment period closes June 9.

After incorporating any response to comments we're providing the plan to EPA by July 1, 2007. Depending on the extent of changes we make as the result of comments, EPA Region 4 may choose to provide an additional comment period.

Recent data is available on the DHEC site at :

<http://www.scdhec.net/environment/baq/scozone.aspx?Page=scozone>

Of interest may be recent daily trend in the ozone presented as a graph (click on the state symbols), annual summaries - towards the bottom of the page - and within the 'daily maxima' spreadsheets, the last few years of high measurements at each (including your) site.

The 3 year average of the fourth highest 8 hour average is the indicator (referred to as the Design Value) that is compared to the standard . The 2004-2006 Design Value for Cowpens is .074 compared to the standard of .08.

You may also wish to check the AIRNow site - data from most ozone sites, including Cowpens, is used to create maps that show near-current conditions (..about a 2 hour delay) and are a good illustration of how concentrations build in the afternoons.

If you have any questions please call.

SCott Reynolds
SC DHEC
Division of Air Quality Analysis
803-896-0902

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